

TYPICAL ADIT BAT GATE INSTALLATION SITES C-3*, C-4 & C-8

(NOTE: SITES C-3, C-4 & C-8 REQUIRE REMOVABLE BAR INSTALLATION - SEE DRAWING #2)

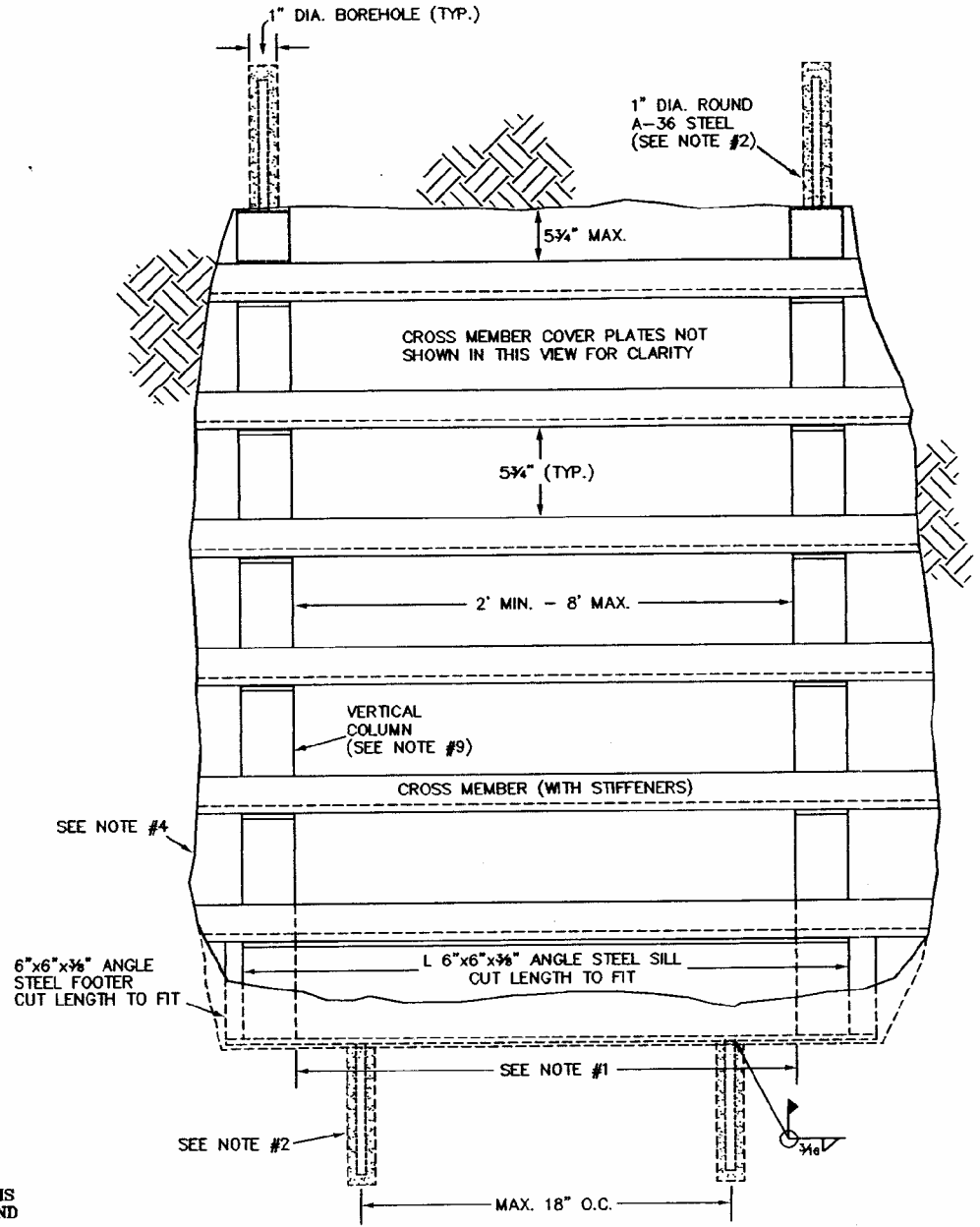
NOTES:

- 1) LOCATION OF UPRIGHTS TO BE PLACED AS CLOSE AS POSSIBLE TO SIDES OF THE OPENING IN ORDER TO MAXIMIZE BAT ACCESS. WIDTH BETWEEN UPRIGHTS SHALL RANGE FROM 2' MIN. TO 8' MAX. AT THE DIRECTION OF THE PROJECT MANAGER.
- 2) ANCHORS SHALL CONSIST OF A 1" DIAMETER A-36 STEEL PIN DRIVEN THROUGH AND WELDED TO A PIECE OF L4"x4"x3/8" ANGLE STEEL. THE ANCHOR SHALL BE EPOXY GROUTED IN AN 8" BORE HOLE (18" IN SOFT OR FRACTURED ROCK) AS SHOWN IN THE DETAIL.
- 3) ALL CROSS MEMBERS AND VERTICAL COLUMNS SHALL BE L4"x4"x3/8". ALL ANCHOR BARS SHALL BE 1" DIAMETER A-36 STEEL ROD.
- 4) ALL CROSS MEMBERS SHALL BE MACHINE OR FLAME CUT TO LENGTH AS NEEDED TO FIT THE IRREGULARITIES OF THE OPENING.
- 5) CROSS MEMBER STIFFENERS SHALL BE L1 1/2"x1 1/2"x3/4" AND PLACED ON ALL CROSS MEMBERS AS SHOWN IN STIFFENER DETAIL.
- 6) CROSS MEMBER SUPPORTS SHALL BE L6"x6"x3/8" (4" IN LENGTH) PLACED ON ALL CROSS MEMBERS.
- 7) UPON COMPLETION, THE ENTIRE STRUCTURE SHOULD BE INSPECTED FOR EXPOSED SHARP EDGES AND CORNERS. ANY SHARP EDGES THAT ARE FOUND SHALL BE SMOOTHED WITH A GRINDER TO REDUCE THE CHANCE OF INJURY TO BATS ENTERING OR EXITING THE GATE.
- 8) CROSS MEMBERS MAY EXTEND PAST UPRIGHTS 30" MAX. WITHOUT ADDITIONAL SUPPORT. ANY ADDITIONAL SUPPORTS THAT ARE NEEDED SHALL BE LOCATED AT THE DIRECTION OF THE PROJECT MANAGER.
- 9) VERTICAL COLUMNS SHALL CONSIST OF TWO PIECES OF L4"x4"x3/8" ANGLE STEEL, WELDED TOGETHER TO FORM A SQUARE COLUMN.
- 10) FLAT STEEL COVER PLATE SHALL BE ATTACHED TO ALL ALL SUPPORTS, EXCEPT THOSE SUPPORTING THE REMOVABLE BAR.

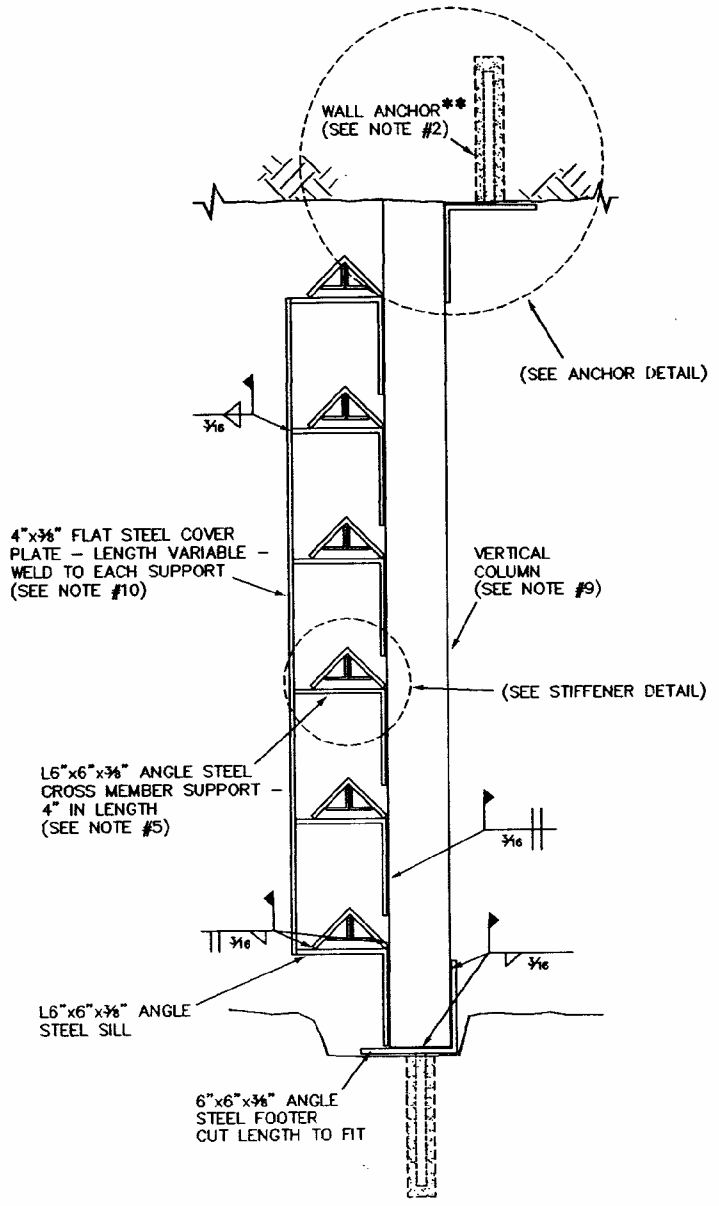
* SITE C-3 WILL REQUIRE A SECTION OF 8"x3/8" FLAT STEEL INSTALLED ALONG THE TOP OF THE BAT GATE AND FLUSH WITH THE CEILING OF THE ADIT. THE PURPOSE OF THIS SECTION OF STEEL IS TO HELP STABILIZE ROCK ABOVE THE BAT GATE AND FURTHER INHIBIT ACCESS TO THE MINE OPENING.

** LOCATED AT THE DIRECTION OF THE PROJECT MANAGER.

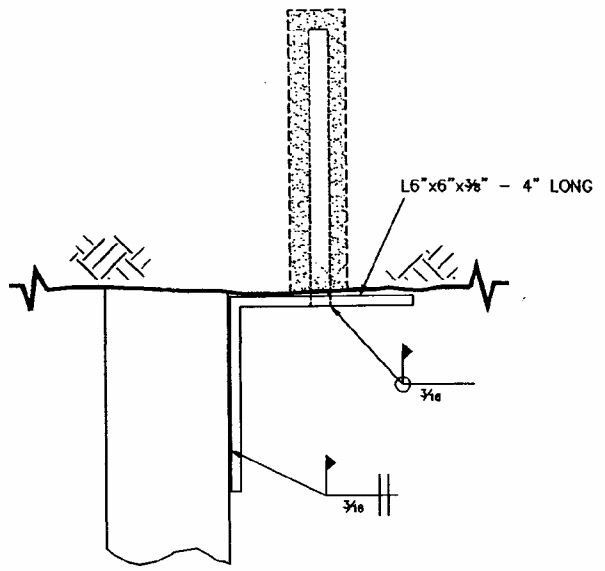
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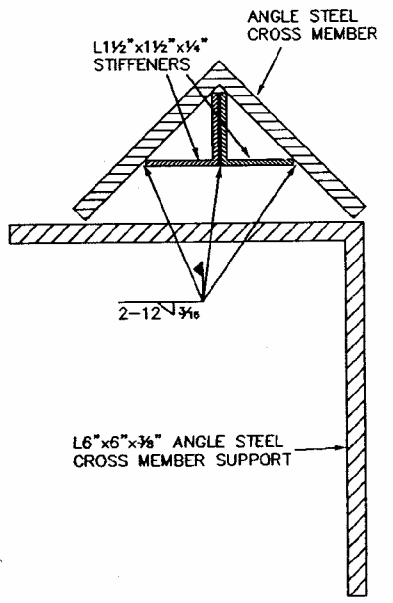
FRONT VIEW
N.T.S.



SIDE VIEW
N.T.S.



ANCHOR DETAIL
N.T.S.



STIFFENER DETAIL
N.T.S.

based on original design by Roy Powers
and the American Cave Conservation Association

CAUTION- THIS PROJECT REQUIRES CONSTRUCTION WORK AROUND AND OVER HAZARDOUS AND UNPROTECTED MINE SHAFTS, STOPES, ADITS AND OTHER OPENINGS WHICH MAY BE OPEN TO THE SURFACE OR HIDDEN FROM VIEW BY TRASH, DEBRIS OR THIN AND UNSTABLE LAYERS OF SURFICIAL MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING HIS EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

<p style="font-size: 8px; margin: 0;">RAILROAD COMMISSION OF TEXAS CAROLE KERTON RYLANDER, Chairman BARRY WILLIAMSON, Commissioner CHARLES R. MATTHEWS, Commissioner SURFACE MINING AND RECLAMATION DIVISION MELVIN B. RODGERS, P.E., Director</p>	SCALE	NOT TO SCALE	DATE	<p style="font-size: 10px; margin: 0;">GUADALUPE MOUNTAINS NATIONAL PARK AML PROJECT</p> <p style="font-size: 8px; margin: 0;">DRAWING TITLE</p> <p style="font-size: 8px; margin: 0;">TYPICAL ADIT BAT GATE INSTALLATION STANDARD PLANS</p>	<p style="font-size: 8px; margin: 0;">DRAWING NO.</p> <div style="font-size: 24px; font-weight: bold; margin: 5px 0;">1</div> <p style="font-size: 8px; margin: 0;">REV.</p> <div style="font-size: 12px; font-weight: bold; margin: 5px 0;">1</div>
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